NOTES ON PAPUAN BIRDS.

BY THE HON. WALTER ROTHSCHILD, PH.D., AND ERNST HARTERT, PH.D.

(Continued from Volume X, 1903, p. 480.)

[For the localities mentioned in these notes see the "Introduction" to this series of articles in Nov. Zool. 1901. pp. 55-61, and the maps, Pls. II. and III. in the same volume of this Journal. The former portions of this series are as follows: Vol. viii. pp. 55-88 (Introduction, Pittidae, Psittaci), and pp. 102-162 (Columbae, Megapodiidae, Rallidue, Limicolae, Alcedinidae); Vol. x. pp. 65-116 (Paradiseidae, Corvidae, Laniidae, Dicruridae, Oriolidae, Artamidae, Sturnidae), pp. 196-231 (Meropidae, Coraciidae, Podargidae, Caprimulgidae, Cypselidue, Campephagidae, Nectariniidae, Dicaeidae, the genus Myzomela, Motacillidae, Sylviidae, Timeliidae); and pp. 435-480 (Meliphagidae, the genus Zosterops, Hirundinidae, Mascicapidae, additions to Dicaeidae, Laniidae, and Timeliidae). We hope to continue the subject shortly.]

XXX. CUCULIDAE.

Cuculus saturatus Blyth.

Cuculus saturatus Blyth, Journ. As. Soc. Bengul xii. p. 942 (1843 : ex Hodgson, MS. ; Nepal).

J fere ad., Pigén in the St. David's or Mapia group, north of Arfak, October 1896. W. Doherty coll.

2 ? ? jnv., Punatch or Bras, in the St. David's or Mapia group, October 1896. W. Doherty coll.

& ad., Mysol, 16. i. 1900. H. Kühn coll. (No. 1776.)

2 3 3 fere ad., 1 ♀ ad., Milne Bay 12. xii. 1898, 17. i. 1899. A. S. Meek coll. (Nos. 2168, 2174, 2181.)

1 & ad., Avera, Aroa River, 9. iii. 1903. A. S. Meek coll. (No. A. 386.)

THE GENUS CACOMANTIS.

The species of the genns *Cacomantis* are not too well known and their nomenclature has so often been changed that it is not easy to name a *Cacomantis* The Papuan forms were well explained by Salvadori in the immortal *Ornitologia della Papuasia*, far less] clearly in vol. xix. of the *Cat. B. Brit. Mus.* Their nomenclature has afterwards been involved, because partially wrongly interpreted by Finsch in *Notes Leyden Museum* xxii. pp. 81–89, though some valuable notes on types and others were added.

The species inhabiting New Guinca—as far as they are known to us may be distinguished as follows :

Upper surface deep bluish schistaceous, underside bright chestunt-rufous. Wing about 115-120 mm. Young unbarred above and below : C. castaneirentris.

Upper surface bluish schistaceous, underside dirty elouded ehestnut-brown Wing about 137-142 mm. Young unbarred above, barred below : C. excitus.

Upper surface pale greyish olivaceous,* underside pale grey, washed with

^{*} There appears to be a clerical error in *Cat. B. Brit. Mus.* xix. p. 272, where the head is said to have barely a trace of grey, while, as a rule, it is almost entirely grey with only a tinge of olivaceous.

(434)

buffy cinnamon, nuder tail-coverts cinnamon buff. Young barred above and below: C. rariolosus.

Upper surface olive-brown with a bronzy gloss; underside rnfons-cinnamon, more or less washed with grey or almost entirely grey, under tail-coverts bright rufons cinnamon. Young barred above and below: *C. assimilis*.

Cacomantis assimilis assimilis (Gray).

(In our former writings we accepted [Nor. Zool. 1901. p. 185; 1903. p. 5] for this enckoo the name *insperatus* of Gould. That bird, however, is described as blue-grey above, and it came from Australia, where the present form has not been found. Dr. Finsch nsed the name *dumetorum* of Gould, but the same objections as to *insperatus* are to be made to the term *dumetorum*: it is described as blue-grey above, and occurs in New South Wales. Neither of the two names can therefore be accepted for a bird which is above olive-brown with a bronzy gloss which does not come from New South Wales. The nomenelatures of Shelley and Finsch are thns erroneous, and we must follow Salvadori, who accepted the next early name—*assimilis* of Gray.)

Cuculus assimilis Gray, P.Z.S. 1858. pp. 184, 195 (Aru Islands).

Cacomantis infaustus Cabanis and Heine, Mus. Hein. iv. p. 23 (1862 : Mysol. Finsch [Notes Leyden Museum xxii. p. 81] accepts the name infaustus for the bird correctly to be called castaneiventris; the description, however, does not fit castaneiventris, but an immature assimilis).

We have the following specimens belonging to C. assimilis:

3 immature birds from Dobbo and Kabroor, Aru Islands, collected by H. Kühn. 6 adult and 4 young birds from the Key Islands, collected by H. Kühn. These

were formerly mentioned under the name of C. insperatus (Nov. Zool. 1903. p. 239).

1 S ad., Kisoei, 3 fairly adult 3 ? Teoor, 2 ad. 1 juv. Gorom, also enumerated as C. insperatus, l.c.

2 S ad., 1 med., 3 juv., Mysol, Jannary 1900 (Nos. 1771, 1773, 1775, 1873, 1979, 1980). Collected by H. Kühn.

1 ad., 2 juv., Obi Major, collected by Lucas (No. 4) and Waterstradt.

4 ad., 5 med., 3 juv., Batjan, Doherty and Waterstradt coll.

 1δ ad., $1 \Leftrightarrow \text{jnv.}$, Kapaur, Dutch New Guinea, December 1896, W. Doherty coll. "Iris purplish brown, darker inwardly. Feet orange, claws black. Bill black, gape and base of lower mandible reddish."

3 3 ad., 1 2 juv., Mafor, May and June 1897. W. Doherty coll.

1 & ad., Simbang, Kaiser Wilhelm's Land, 18. viii. 99. Dr. Nyman coll.

2 S ad., 2 ? juv., Avera, Aroa River, January to March 1903. A. S. Meek coll. (Nos. A 11, 252, 432, 458.)

1 & ad., Bihagi, head of Mambare River, north side of Owen Stanley Monntains, January 1896. (No. A 2317.) A. S. Meek coll.

1 ad., 1 med., 1 very young, Milne Bay, east coast of British New Guinea, December 1898, April 1897. (Nos. 2176, 2479, 2482.) A. S. Meek coll.

1 & ad., Collingwood Bay, Jnne 1899. (No. 2557.) A. S. Meek coll.

Cacomantis assimilis websteri Hart.

Cacomantis websteri Hartert, in Webster's Through New Guinea p. 370, and Ibis 1899. p. 278 (New Hanover).

Besides the type specimen we have now two more, which were preserved in spirits, and both are also slaty grey on the under surface, with hardly a suspicion of a rufous tinge. One has the nuder tail-coverts grey with rufous tips and bars, the other rufous but grey towards the base.

This seems to be a fairly distinct subspecies of *assimilis*. In our large series of *assimilis*, as enumerated above, there are only two or three specimens which are uniformly grey underneath, and in those the grey is paler than in the *websteri*. Moreover, the under tail-coverts in the former are brighter and always rufous. It would be a very strange thing if all three adult New Hanover specimens were aberrations! Moreover, the young specimen from New Hanover is darker than any of our young C. a. assimilis.

So far we are quite at ease; but there are also *Cacomantis* of this group on New Ireland, New Britain, and on the d'Entrecasteaux Islands. About these we are not at all certain. Years ago we have discussed the specimens from Fergnsson Islands, and we still find that they have longer bills than nearly all *assimilis* from other places. The few skins before us from New Ireland (three adult ones) are grey underneath, almost without a rufous wash, and their tails are very long. This has already been pointed out by Finsch. Their under tail-coverts are uniform cinnamon rufous. One from Duke of York Island (coll. by Kleinschmidt) is more rufous underneath. Few of the tails are complete, and we consider this material too meagre to deduct any conclusions from. The questions are :

1. Are the birds from New Ireland, Duke of York, and New Britain the same as C. a. websteri?

2. Are they a closely allied form, different from *websteri*, and still more so from C. a. assimilis?

3. Is the form from the d'Entrecasteaux Islands another new subspecies, standing somewhat between *websteri* and *assimilis*, differing from the former by its larger bill and mostly more rufous undersurface, from the latter by its larger bill?

We are inclined to think that the Fergnsson form requires a name, and that the one from New Ireland, etc., may perhaps be united with *websteri*.

Cacomantis castaneiventris Gould.

Cacomantis castaneiventris Gould, Ann. & Mag. Nat. Hist. (3), xx. p. 269 (1867: Cape York, Australia).

Cacomantis infaustus (non Cabanis & Heine !) Finsch, Notes Leyden Museum, xxii. p. 81.

1 & ad. Cooktown, May 1900. Olive coll. (No. A 75.)

1 ad. Cooktown, without date. Olive coll.

1 ad. Mountains of British New Guinea, no exact locality. E. Weiske coll.

I ad. "Between Rivers Laroki and Vanapa," Owen Stanley Mountains. E. Weiske coll.

1 " ? " ad. Kotoi district, 4000 ft., 13. viii. 1898. A. S. Anthony coll.

3 S ad. Avera, Upper Aroa River, Jannary, February 1903. (Nos. A 177, 207, 313.) A. S. Meek coll.

 1δ , $2 \Im$, 1 nnsexed, all ad., 1δ jnv., Owgarra, Angabunga River, November and December 1904, January 1905. (Nos. A 1874, 1884, 1916, 1977, 2105.) A. S. Meek coll.

 3δ , $2 \Leftrightarrow$ ad., 1δ juv. Bihagi, head of Mambare River, north side of Owen Stanley Monntains, February to April 1906. (Nos. A 2379, 2402, 2537, 2614, 2665, 2727.) A. S. Meek coll.

(436)

1 3, 1 9 ad., 1 3 jnv. Milne Bay, January, February 1899. (Nos. 2200, 2236, 2330.) A. S. Meek coll.

Salvadori (Aggiunte Orn. Pap. I. pp. 48, 49) has separated a northern form, which, he says, is distinguished by somewhat smaller size, longer bill, and lighter under-surface, under the name of C. arfakianus. Its distribution is said to be the Arfak Peninsula, Salwatti, Mysoł and Aru, while C. castaneicentris inhabits S.E. New Guinea and the Cape York Peninsula. Dr. Finsch says (l.c. p. 82) that he agrees with Shelley in not considering arfakianus a distinct species. As we have not seen a series of the latter, we cannot venture to decide about this, but we are a priori convinced that Salvadori is a better judge than either Shelley or Finsch, as the former had compared examples of both forms, while Shelley had before him only adult specimens of the true castaneicentris, and Finsch evidently only such of the northern form, from Aru, Mysol, Salwatti, and the Arfak Peninsula. The young bird from Key and other young ones mentioned by Finsch are evidently young assimilis.

Our series, as enumerated above, is very constant, though there is certainly some individual variation in the brightness and intensity of the colour underneath. The young of *C. castaneiventris* differs entirely from that of *C. assimilis*. While the latter is above dark olivaceous brown with rufous crossbars and spots, and beneath also heavily harred, that of *C. castaneiventris* has the upperside chocolate brown with an olivaceous bronzy shine, **without bars**, the under-surface pale rusty brown, the tail dark slate with edges and bars. From this plumage they monlt straight into that of the adult bird.

We have, however, a very peculiar bird, obtained at Wanumbai, on Kobroor Island, Aru Group, 31. viii. 1900, by Heinrich Kühn. This is above like the young of *C. castaneicentris*, but the underside is creamy white, with parts of the flanks and some few patches rufous-chestnut, as fresh feathers appear here and there. Is this the juvenile plumage of *C. c. arfakianus*? Or is there a third, hitherto unrecognised, subspecies on the Aru Islands? Only the comparison of a series of adult and young birds from Arfak as well as from the Aru Islands, with our series from British New Guinea can decide these questions.

Cacomantis excitus sp. nov.

Supra saturate schistaceus, alis nitore acneo-virescente, rectricibus chalybeis, albo terminatis, lateralibus albo notatis ut in formis congeneribus similibus. Mento, gula superiore, capitisque lateribus schistaceo-cinereis, collo antico, pectore, abdomine plus minusve sordide castaneo-brunneis; alarum flexuris albis, plus minusve rufescente lavatis, remigum pogoniis internis basin versus late cinerascente-albidis, ut in congeneribus; subcandalibus saturate cinnamomeo-rufis. Al. 137—142; caud. 132—140; culmen 21—23 mm.

Hab. In montibus Novae Guineae meridionalis orientalis.

This most interesting new form is nearest to *Cacomantis meeki* from Isabel Island, Solomon Archipelago, but differs at a glance by its much smaller bill (culmen 21-23, against 26-28 in *C. meeki*), darker, more or less dirty or clouded ebestnut-brown under-surface, as well as darker, more slaty chin and throat. It is doubtless a subspecies of *C. meeki* from Isabel. The latter is evidently a form representing *C. addendus* from Kulambangra and New Georgia, but we find it difficult to decide to which form of New Guinea it is nearest allied. Evidently

(437)

C. simus and schistaceigularis of the Fiji Islands and New Hebrides are their representatives. Probably the representative on New Guinea is *eastaneiventris*, but we prefer, in order to avoid an error, to name the new form binomially, *Cacomantis excitus*.

The type is No. A 2104, Owgarra, Angabunga River, 16. ii. 05. "Iris brown (light brown), feet yellow (chrome yellow, lemon yellow, dirty yellow), bill black."

We have the following skins in addition to the type :

S, Avera, Aroa River, 21. ii. 03. (No. A 262.) A. S. Meek coll.

2 さる, Bihagi, head of Mambare River, north side of Owen Stauley Mountains, 16. ii. 06. (Nos. A 2426, 2362.) A. S. Meek coll.

1 ad., Aroa River. E. Weiske coll.

The following young bird appears to belong to this form :

1 nestling, Mt. Knutsford 11,000 ft., 19. viii. 1898. A. S. Anthony coll. Upperside brown, unbarred, with rusty edges to the feathers, rectrices (quite short, not yet half-grown) bluish slate-black, the middle ones edged, the lateral ones also barred with rufous, underside barred.

Cacomantis variolosus (Horsf.).

Cuculus variolosus Vig. & Horsf., Trans. Linn, Soc. London, xv. p. 300 (1826 : Australia). Cuculus symbonomus Müller, Verh. Nat. Gesch., Land- en Volkenk., p. 177 (1839-44 : Timor).

Salvadori, Orn.-Pap. 1. p. 340, and Finsch, Notes Leyden Mus. xxii. p. 89, reject the name variolosus, prohably because the type is a young bird : an arbitrary proceeding which, if followed, would—like the introduction of philological semples—go far to endanger stability in nomenclature.

Besides a series from Australia, the Key Islands, Ceramlaut, Batjan, Kisser and Obi, we have an adult bird shot by William Doherty near Dorey, in June 1897, and two young ones from German New Guinea, shot by Dr. Nyman and Captain Webster.

Chrysococcyx meyeri Salvad.

Chrysococcyx meyeri Salvadori, Ann. Mus. Civ. Gen., vi. p. 82 (1874 : Arfak).

 $1 \$ ad., Arfak (Mori), 29. iv. 1875. Beccari coll. (Specimen f of Salvadori's list, Orn. Pap. i. p. 346.)

1 3 ad., Kapaur, 3000 ft., December 1896. W. Doherty coll.

3 d ad., 3 9 ad., Bihagi, head of Mambare River, March 1906. A. S. Meek coll. (Nos. A 2515, 2552, 2599, 2611, 2612, 2653.)

1 3 ad., Aroa River, 5000 ft., January 1900. E. Weiske coll.

2 & ad, Avera, Aroa River, 28. i., 28. ii. 03. A. S. Meek coll. (Nos. A 142, 323.)

1 9 ad., 1 3 juv., head of Aroa River, 24, 27. iv. 05. A. S. Meek coll. (Nos. A 2115, 2130.)

1 & ad., 1 & ad., 1 juv. Owgarra, Angabunga River, 6000-8000 ft., 16. xi. 04; 17, 10. i. 05. (Nos. A 1857, 1963, 1973.)

1 ?, Kone District, British New Guinea, June 1898. A. S. Anthony coll.

1 & ad., Mt. Cameron, Owen Stanley Range, 7000 ft., 12. viii. 1896. A. S. Anthony coll.

2 9 ad., Milne Bay, British New Guinea, 9. ii., 12. iv. 1899. A. S. Meek coll. (Nos. 2286, 2460.)

(438)

The adult male has the crown and forehead metallic green, while in the female the forehead and often the crown nearly as far as the nape, are chestnut.

The young in first plumage is very different: Upper surface yellowish brown, head and hind-neck with an ashy tinge. Quills dark brown, basal half of primaries edged and washed with chestnut rufous; bases of all the quills buff, washed with cinnamon-red. Rectrices brown with a wide blackish subterminal bar; lateral ones: outer web with two blackish and a white patch near the base, inner web with blackish base, three distinct and an indistinct blackish and three more or less sharply defined white bars on the basal half. Under-surface greyish buff, under wing-coverts cream-coloured. Bill black, base of lower mandible light, feet very light brown, iris brown.

Chrysococcyx ruficollis (Salvad.).

Lamprococcy.c ruficollis Salvadori, Ann. Mus. Civ. Gen., vii. p. 913 (1875 : Hatam, Arfak).

3, Aroa River, 5000 ft., January 1900. Émil Weiske coll.

1 3, Owgarra, Angabunga River, 6000-8000 ft., 14. xi. 04. A. S. Meek coll. (No. A 1847.)

2 3 ?, Bihagi, head of Mambare River, north-east side of Owen Stanley Range, 16, 17, ii, 06. A. S. Meek coll. (Nos. A 2435, 2441).

" Iris reddish brown, feet greenish slate, bill blackish slate."

This series of six specimens, evidently all adult, differ from other species of *Chrysococcyx* by the sides of the head and neck being einnamon rufous, the throat and jugulum more or less strongly washed with rufous-einnamon; the throat and jugulum as well as the rest of the under-surface and nuder tail-coverts are barred with purplish or sometimes greenish bronze, the bars on the throat being narrower and sometimes evanescent. The upper surface is dark bronzy green, more or less washed with dark purplish bronze. Outer rectrices black, tips, four bars on outer webs and two (sometimes incomplete) bars on inner webs white, the latter partly edged with cinnamon; second pair blackish, inner webs with a round white spot at the tip and usually two rufous-cinnamon bars, central pair dark metallic green with ill-defined black base and black subapical bar.

This rare species was hitherto only known from the type from Arfak. It would, of course, be desirable to compare a series from the latter place with our series, but at present there is no reason to doubt their identity.

Chrysococcyx poecilurus Gray.

Chrysococcyx poecilurus Gray, P.Z.S. 1861, pp. 431, 437 ("Mysol & New Guinea") (Type from Mysol in Brit. Museum).

1 3 ad., Mysol, 13. i. 1900. Heinrich Kühn coll. (No. 1772). "Iris chocolate, eyelids carmine, feet dark plumbeous, bill black."

1 & ad., 2 & ad., 1 & juv., Fergusson Island, May and June 1897. A. S. Meek coll. (Nos. 349, 391, 421, 555.)

The young is paler, less greenish above, under-surface, including the under wing-coverts, white, throat washed with dirty buff.

1 9 ad., Sungey Bark, Kobroor, Aru Islands, 29. viii. 1900. Heinr. Kühn coll. (No. 2259).

We have also specimens from Cape York, collected by D'Albertis and Meck, and one from Atapupu, Timor, collected by Everett.

(439)

Chrysococcyx plagosus (Lath.).

Cuculus plagosus Latham, Ind. Orn. Suppl. p. xxxi. (1801-Australia).

1 9, Ron Island, July 1897. W. Doherty coll. "Iris reddish, feet iron-grey, bill black."

I ♀, St. Aignan, Louisiade Islands, 28. viii. 1897. A. S. Meek coll. (No. 910.)
5 ♂ ♂, 1 ♀, Woodlark Island, April 1897. A. S. Meek coll. (Nos. 188, 193, 214, 216, 217, 217A.) Nearly all these specimens have the head and neck above metallic green, but they appear to be more or less immature, and therefore we have no doubt that they belong to C. plagosus.

1 juv., Owen Stanley Mountains, 11,000 ft., 23. viii. 1895. A. S. Anthony coll. This bird we believe to belong to *Ch. plagosus*, though we are not certain about this. It is above dark metallic green, underneath greyish, the feathers of the throat and jugulum with ante-apical white bars, the sides of the breast and abdomen and the under tail-coverts distinctly barred with bronzy brown, the middle of the abdomen white. Under wing-coverts with bronzy brown bars, the usual bar across the underside of the wing white with a buffy tinge. The feet are orange in the skin.

1 8, Aola, Guadaleanar, 4. v. 1887. C. M. Woodford coll.

1 3, 2 9 9, Guadalcanar, April, May 1901. A. S. Meek coll. (Nos. 2959, 3044, 3122.)

1 9, Isabel, Solomou Islands, 26, vi. 1901. A. S. Meek coll. (No. 3406.)

All these specimens from the Solomon Islands have hardly any coppery colour on the head and mantle, but again most of them are not fully adult. We therefore (in concord with all other ornithologists) cannot separate them from *C. plagosus*. Larger series might, however, show that Australian specimens have longer wings than those from New Guinea and the Papuan Islands.

In Nov. Zool. 1905. p. 258 we recorded a male of C. plagosus from Bougainville, but this specimen is a C. lucidus, an error which we herewith correct.

Calliechthrus leucolophus (Müll.).

Cuculus leucolophus S. Müller, Verh. Nat. Gesch. Ned. Ind., "Land- en Volkenkunde," p. 22 (1844-Lobo Bay).

Known from New Guinea, Salwatti, Waigin and Mysol. We have the following specimens :

2 without labels, Dutch New Guinea. (Preparation of Bruijn's hunters.)

1 \mathcal{J} , North coast of Dutch New Guinea, between 136° and 137° long. (Bruijn's hunters.)

2 33, Kapaur, December 1896, February 1897. William Doherty coll.

1 jun., Constantinhafen, Kaiser Wilhelm's Land. Kubary coll.

3 ♂ ♀, Milne Bay, 18, 26. iii., 9. iv. 1899. A. S. Meek coll. (Nos. 2383, 2479, 2450.)

1 ad., 1 immat., Mountains of British New Guinea. (Purchased.)

1 immat., Brown River, British New Guinea. E. Weiske coll.

2 immat., Mount Cameron, Owen Stanley Mountains, August 1896. A. S. Anthony coll.

4 るる、1 9, Avera, Aroa River, January, February, March 1903. A. S. Meek coll. (Nos. A 83, 123, 274, 381, 431.)

1 3. Owgarra, Angabunga River, 28. x. 04. A. S. Meek coll. (No. 1807.)

30

(440)

2 33, 1 9, Bihagi, head of Mambare River, February, March 1906. A. S. Meek coll. (Nos. A 2443, 2597, 2657.)

1 ad., Sattelberg, German New Guinea, January 1905. C. Wahnes coll.

Eudynamis orientalis cyanocephalus (Lath.).

(For a review of the genus see Hartert, Nov. Zool. 1903, pp. 235-238.) Cf. Nov. Zool, 1903, p. 237.

1 9 ad., "Popo inland, W. district," 5. vi. 1896. A. S. Anthony coll.

1 & ad., Mount Cameron, Owen Stanley Mountains, 19. viii. 1896. A. S. Anthony coll.

We must, from its size (wing 206 mm.), regard the male specimen as a *cyanocephalus*. The female is quite typical, and proves the occurrence of this form in S.E. New Gninea.

Eudynamis orientalis rufiventer (Less.).

Cf. Nov. Zool. 1903, p. 238.

1 & ad., 1 & jnv. Arfak preparation. No exact locality.

2 88, 1 9, "Talandjang" (?), Dutch New Guinea. (Ex Bruijn.)

2 9 9, Taraway, May 1884. (Ex Bruijn.)

39 ad., Ron Island, July 1897. W. Doberty coll.

1 & ad., "Southern New Guinea"? D'Albertis coll., original label lost.

1 & ad., Yule Island, November 1875. D'Albertis and Tomasinelli coll. (Wing 195 mm.)

Eudynamis orientalis alberti subsp. nov.

Eudynamis orientalis subsp. nov.? Rothschild & Hartert, Nov. Zool. 1905. p. 257.

1 & ad., Gizo, Solomon Islands, 31. x. 03. A. S. Meek coll. (No. A 696.)

2 3 ad., Choiseul, Solomon Islands, December 1903. A. S. Meek coll. (Nos. A 886, 1041.)

Besides being smaller (wings 180—185 mm.), the upperside, especially the head and mantle, are deeper and more of a bluish black, and we therefore no longer refrain from naming this form.

Type: & ad., Gizo, 31. x. 03. (No. A 696.)

We hope to see the females of this form before long.

Named in honour of Mr. Albert Meek.

Eudynamis orientalis salvadorii Hart.

Cf. Nov. Zool. 1900. p. 232; 1903. p. 238.

3 ad., New Ireland. Collected by a missionary. Type of E. o. salvadorii.

3 ad., New Britain. Bought from the "Linnaea" in Berlin.

2 ad., New Ireland. Collected by a missionary.

2 ad., New Britain. Kleinschmidt coll. (Ex Mus. Godeffroy.) (No. 15553.)

Microdynamis parva (Salvad.).

Eudynamis porva Salvadori, Ann. Mus. Civ. Gen. vii. p. 986 (1875-? Tidori, Beccari coll.).

& ad. Ron Island, July 1897. W. Doherty coll. "Iris scarlet, feet slaty-grey, bill black."

(441)

1 juv., Mount Maori, near Humboldt Bay, January 1899. J. M. Dumas coll. 1 juv., near Humboldt Bay. J. Dumas coll.

1 (??), Sattelberg, German New Guinea, December 1905. C. Wahnes coll.

1 &, 2 ? ?, Milne Bay, 30. i., 14. ii., 18. iv. 1899. A. S. Meek coll. (Nos. 2213, 2316, 2478.)

1 & ad., Kone district, British New Guinea, June 1898. A. S. Anthony coll.
1 & ad., Oriori district, British New Guinea, 20. i. 1896. A. S. Anthony coll.
1 jnv., Kotoi district, British New Guinea, August 1898. A. S. Anthony coll.
1 & 2 ♀ ♀ or jnv., Owen Stanley Mountains. Emil Weiske coll.

It is possible that there is a northern, darker, and a sonthern, lighter and more rufescent form of M. parva, but the present material is not sufficient to decide this question, as there is great variation between the specimens from one place. It is certain that the adult male has the crown and monstachial stripe glossy blueblack, and that it moults into this plumage from a barred juvenile dress without black crown or monstachial stripe. The adult female has been described as having a broad greenish black collar at the back of the neck, but probably this is wrong, and the female has no black collar, the birds with the latter being juvenile males in moult. The evidently young birds as well as the old ones differ strikingly in the shades of colour. A larger series, with trustworthy sex-notes and dates, from different places, is desired to clear up the questions raised above.

Scythrops novaehollandiae Lath.

Scythrops novaehollandiae Latham, Ind. Orn. i. p. 141 (1790-Australia).

1 ad., Arfak (?), native skin.

1 ? ad., Duke of York Island, June 1880. Th. Kleinschmidt coll. (No. 4679.) Ex Mus. Godeffroy.

8 9, Trobriand Islands, 12, 15. iv. 1895. A. S. Meek coll.

2 Nicura, British New Guinea, August 1893. Lix coll.

1 \mathcal{J} , Yule Island, 3. vi. 1875. D'Albertis coll. (No. 192.) Specimen f of Salvadori's list in *Orn. Pap.* i. p. 374.

Centropus menbeki menbeki Less. & Garn.

Centropus menbeki (sic) Lesson & Garnier, Voy. Coquille, Zool. Atlas pl. 33 (1826-N.W. New Guinea).

8 ad., Mysol, 1. xii. 1883. Guillemard coll.

2 3 3, 1 9, Mysol, January 1900. Heinr. Kühn coll. (Nos. 1871, 1872, 2059.)

1 & ad., 2 not sexed, Andai, Arfak. Bruijn eoll.

1 ad., Hatam, Arfak, February 1877. Ex Bruijn.

1 º, Arfak. Bruijn coll.

1 8, Arfak. Brnijn coll. Specimen g of Salvadori's list, Orn. Pap. i. p. 378.

39, Dorei, Arfak, June 1897, October 1896. W. Doherty coll.

2 33, 1 (?), Takar, October and November 1896. W. Doherty coll.

1 &, Kapanr, November 1896. W. Doherty coll.

1 \mathcal{J} , Awek, Jobi Island, April 1875. Ex Bruijn. Specimen q of Salvadori's list, *t.c.* p. 378.

8 jnv., 9 ad., Surui, Jobi Island, January 1883. Ex Bruijn.

1 juv., Kaririri, Jobi Island. Bought from native by W. Doherty.

1 ad., Triton Bay, 25. vii. 1896. Capt. Webster coll. (No. 291.)

(442:)

1 8, Sattelberg, 20. vii. 1897. E. Nyman coll.

1 9, Fly River, 31. v. 1877. D'Albertis coll. (No. 34). No. n³ of Salvadori's list, *l.c.*

1 3, Mailu, British New Guinea, 5. viii. 1895. A. S. Anthony coll.

1 3, 1 (?), Mount Cameron, Stanley River, 2000 ft., 20. ix. 1896. A. S. Anthony coll.

The amount of greenish gloss varies. Some examples, especially those from the Fly River and Jobi, show a lot of bluish, almost purplish gloss, thus approaching the Aru form. The specimens collected by Anthony have very huge bills. A better series from the Mountains of British New Guinea should be compared to show if there is any constant difference.

Centropus menbeki aruensis Salvad.

Centropus aruensis Salvadori, Ann. Mus. Civ. Gen. xii, p. 317 (1878-Aru Islands).

& ad., Soengej Wanumbai, Kobroor Island, Arn Islands, 3. ix. 1900. Heh. Kühn coll. (No. 443.)

This specimen is very typical, showing a strong, almost purplish blne gloss on the entire upper surface and tail.

1 & ad., Trangan, Aru Islands, 20, ix. 1900. Heh. Kühn coll. (No. 2448.)

This example is not so typical, showing very little of a blue sheen, thus being similar to some specimens of C. m. menbeki. There is no other difference than the blue gloss, and single specimens are sometimes not separable, therefore C. menbeki menbeki and C. menbeki are only subspecies.

Centropus violaceus Quoy & Gaim.

Centropus violaceus Quoy & Gaimard, Voy. Astrolabe, Zool, i. p. 299 (1830-New Ireland).

1 & ad., New Ireland. Collected by a missionary.

Differs from *C. menbeki* in the uniform purple or violet-blue colour, perfectly black bill, but light (reddish) bare skin round eyes and yellow feet. Probably subspecies of *menbeki*.

Centropus chalybeus (Salvad.).

Nesocentor chulybeus Salvadori, Ann. Mus. Civ. Gen. vii. p. 915 (1875-Misori).

2 9 9, Korrido, 1879 (Misori). Ex Bruijn coll.

Differs from *C. menbeki* and agrees with *violaceus* in having a quite black bill. The bare facial skin and feet are dark, the gloss dark steel-blue. Probably subspecies of *menbeki* and the rest. About the names Korrido (Kordo) and Misori see *Nov. Zool.* 1901, p. 58.

Centropus nigricans (Salvad.).

Polophilus nigricans Salvadori, Ann. Mus. Civ. Gen. ix. p. 17 (1876-Naiabui and Yule Island).

 $\mathcal S$ fere ad., Naiabui, British New Guinea, October 1875. D'Albertis coll. Specimen c of Salvadori's list, Orn. Pap. i. p. 390.

3 jun., Nicura, British New Guinea. Lix coll.

1 & ad., Fergusson Island, D'Entrecasteaux group, 12. x. 1894. A. S. Meek coll.

(443)

Centropus ateralbus Less.

Centropus ateralbus Lesson, Férussac's Bull. Sc. Nat. viii. p. 113 (1826-New Ireland).

2 ad., 2 semi-ad., New Ireland. Collected by a missionary.

9 ad. New Britain, 3. vii. 1886. Knbary coll.

& juv., New Britain, 25. v. 1886. Kubary coll. Native name : " A kamúk."

2 & & ad., Blanche Bay, New Britain. Otto Finsch coll.

Centropus bernsteini Schleg.

Centropus bernsteini Schlegel, Ned. Tijdschr. v. Dierk. iii. p. 251 (1866-(?) Salwattı,

1 ad., Sattelberg, German New Guinea. C. Wahnes coll.

1 3 jnv., Stephansort, German New Guinea, December 1899. G. Nyman coll.

XXXI. STRIGES.

Ninox theomacha (Bp.).

Spiloglaux theomacha Bonaparte, Compt. Rend. xli. p. 654 (1855-Triton Bay).

1 9, Arfak (one of Bruijn's skins).

1, Ambernoh River. J. Dnmas coll.

1 º, "North coast British New Guinea," 8. xi. 03. H. G. Liverey coll.

1 3, Aroa River, 5000 ft. E. Weiske coll.

2 9 9, Avera, Aroa River, February 1903. (Nos. A 191, 285.) A. S. Meek coll.

 $4 \ \delta \ \delta$, $1 \$, Owgarra, Angabunga River, October, November 1904, January 1905. (Nos. A 1805, 1806, 1819, 1825, 1951.) A. S. Meek coll. "Iris orange-yellow, feet lemon-yellow, bill slate, darker at base."

1 8, Waigin, 28. xii. 02. J. Waterstradt coll.

1 9, Mysol, 26. i. 1900. (No. 1909.) H. Kühn coll.

It is quite possible that there are two or three subspecies united here under N. theomacha. The specimens from Dutch New Guinea are perhaps a little smaller, and so is certainly that from Mysol, which, moreover, is less rufous, more chocolatine, underneath. If the Mysol bird differs, its name will be N. t. hoedti Schleg. 1871.

Ninox dimorpha (Salvad.).

Athene dimorpha Salvadori, Ann. Mus. Civ. Genova vi. p. 308 (1874-Sovong).

1 ad., 1 pull., Dutch New Gninea (from dealers).

1 ad., Ambernoh River. J. Dumas coll.

1 ad., Monnt Victoria, Owen Stanley Range, 5000-7000 ft., April-June 1896. Native coll.

1 ad., Babooni, British New Guinea, September 1903. A. E. Pratt coll.

1 3, Milne Bay, British New Gninea, 3. ii. 1899. (No. 2251.) A. S. Meek coll.

1 3, Collingwood Bay, British New Guinea, 15. vi. 1899. (No. 2613.) A. S. Meek coll.

"Iris bright yellow, feet lemon-chrome, bill dark slate, zinc-colour along the culmen."

(444)

Ninox variegata (Quoy & Gaim.).

Noctua variegata Quoy & Gaimard, Voy. Astrol. Zool, i. p. 166. pl. i. (1833-New Ireland).

We have two specimens collected on New Hanover by Capt. Webster.

Ninox goldii goldii Gurney.

Ninox goldii Gurney, Ibis 1883. p. 169 (S.E. New Guinea. Probably this is erroneous, as in many other cases with Goldie's birds, and the types were from Fergusson Island). (Cf. Nov. Zool. 1896. p. 246.)

Ninox goodenoriensis De Vis, Report on Birds from Brit. New Guinea (Government Report) 1890.

Besides the examples from Fergusson we have now two from Goodenough, 1 δ ad. 1 juv. The latter has more white on the scapulars and wing-coverts, and the inner secondaries have large round white spots on the inner webs, these spots getting larger towards the base. The under-surface is not bright rusty rufous spotted with white, as in the adult bird, but whitish with brown longitudinal spots and pale rusty tips to the feathers. *Ninox goodenoviensis* is undoubtedly the same as *goldii*.

We cannot find that the description of Ramsay's N. terricolor (Proc. Linn. Soc. N. S. Wales, iv. 1879. p. 466) can apply to N. goldii. The description is very confused, but that of the tail and wings does not fit N. goldii, moreover the measurements are considerably smaller. We therefore think that N. terricolor must be a species or subspecies not yet known in Europe.

Ninox rufa humeralis (Bp.).

Athene humeralis Bonaparte, Consp. i. p. 40 (1850-" Oceania." Ex Hombr. et Jaeq., Voy. Pôle Sud, Atlas. pI, iv. fig. 1. "New Guinea").

1 juv., moulting to adult plumage, Dutch New Guinea. Ex Boucard. (No. 46.)

1 ad., Ambernoh River, Dutch New Guinea. J. Dumas coll.

1 ad., Brown River, British New Guinea. E. Weiske coll. 1898.

1 jun., Mt. Kebea, 4000 ft., June 1902. A. E. Pratt coll.

1 8, 1 9, Milne Bay, 13, 17. ii. 1899. (Nos. 2300, 2344.) A. S. Meek coll.

1 9, Collingwood Bay, 28. v. 1899. (No. 2530.) A. S. Meek coll.

"Iris lemon chrome, light lemon, pale yellow. Feet light lemon chrome. Bill: bluish enamel down centre on top, sides blue-slate, under-mandible bluish enamel."

The downy young is white.

Ninox ??

A young owl in light cinnamon down, with wings and tail developed, which are brown with rufous bars, does not seem to belong to any owl we know of. Possibly it is the young of a hitherto unknown species. It is from British New Guinea, and was bought from Messrs. Burns, Philp & Co.

Ninox connivens connivens (Lath.).

Falco connirens Latham, Ind. Orn. Suppl. ii. p. 12 (1801-Australia).

This is an Australian large form with very distinct bars on the tail. We have specimens from Gairus and other places in Queensland.

(445)

Ninox connivens occidentalis Rams.

Ninor connivens occidentalis Ramsay, Proc. Linn. Soc. N. S. Wales i. (2) p. 1086 (1886-N.W. Australia).

A more western form, smaller, with the stripes on the underside more rusty. Cf. Nov. Zool. 1905. p. 210.

Probably N. peninsularis Salvad. from Cape York is a closely allied form of this species.

Ninox connivens assimilis (Salvad. and D'Alb.).

Ninox assimilis Salvadori and D'Albertis, Ann. Mus. Civ. Genova vii. p. 809 (Southern New Guinea).

Very much smaller than the Australian allies, and with the bars on the tail less conspicuous, because they are only of a paler brown than the rest of the tail.

We have only one specimen of this owl, without reliable locality, but doubtless from the mountains of British New Guinea, purchased from Messrs. Mcllwraith & Co., in London. Wing 260 mm.

Ninox connivens rufostrigata (Gray).

Athene rufostrigata G. R. Gray, Proc. Zool. Soc. London 1860. p. 344. (Gilolo).

Quite like N. c. assimilis, with the bars to the tail equally inconspicuous, but much larger.

We have two specimens from Morty (J. Dumas coll.), wings about 285 mm., one \mathcal{J} ad. from Batjan (J. Waterstradt coll.), wing about 278, a pullus from Batjan (Doherty coll.), and a bird, marked \mathcal{J} , obtained on Obi Major by Waterstradt's hunters; this is at first glance a puzzling bird, agreeing in size with our *assimilis*, but the primaries are not fully grown.

Strix tenebricosa arfaki Schleg.

Strix arfaki Schlegel, Notes Leyden Museum i. p. 101 (1879-Arfak).

Mr. Meek sent a series of eight specimens from the Upper Aroa River. The males agree with other males from the mountains of British New Guinea, while the females are considerably larger. *Strix arfaki* is merely a darker and somewhat larger Papuan form of the North Australian *Strix tenebricosa* Gould.

1 9, Avera, Aroa River, 4. vi. 03. (No. A 601.) Wing about 293 mm.

2 さる, Owgarra, Augabunga River, above 6000 ft., 9, 13. i. 05. (Nos. A 1969, 1985.) Wings about 255 mm.

l ♂, 4 ♀ ♀, Head of Aroa River, 4000—6000 ft., April and May 1905. (Nos. A 2132, 2133, 2139, 2161, one without number.) Wing, ♂ 255 mm., ♀ 285—305 mm. 1 ♀ (? ♂ !), Collingwood Bay, 8. vi. 1899. (No. 2585.) Wing 270 mm.

"Iris black, brown, dark brown, bluish black. Feet dirty greenish slate, vandyke-brown, smoky brown. Bill blackish horn, black, slate on top, light brown underneath."

A quite young bird, not yet fully grown (No. A 2088), has on the npperside, which is strongly mottled with black, some broader buffy white shaft-lines and is less decidedly cross-barred, the bars running together and forming irregular blackish markings. Eleven females-apparently adult, but possibly not so-(Nos. A 2012, 2044, 2050, 2057, 2058, 2059, 2061, 2076, 2087, 2089, B 115) are all much more brown above. Each feather has a white or buffy white shaft-line (not merely a white shaft), the inner web is black, sometimes quite uniform, but mostly with large rufous spots or cross-markings; sometimes both webs are black with rufous markings. The outer web, however, is generally brown with some blackish mottlings. The under-surface is always strongly marked with somewhat harpoon-shaped cross-lines, which are broader than in the males. Another specimen marked "female" (No. 105) has underneath narrow cross-lines as in the males; the upper surface is less deep and more of a rusty brown, the outer webs of the feathers uniform, some with a grevish tinge, the inner webs with large black cross-patches and rufous spots. I suspect that this specimen is really a male. A very young bird (B3), obtained on Yule Island, 14. x. 04, has the middle of the chest and the ground-colour of the abdomen buffy white, and may possibly not belong to S. plumbeus but to another species or subspecies. Count Salvadori has considered specimens from Port Moresby as belonging to S. errvinus Gould, which is said to be a northern form of S. australis, but its distinctness is doubtful. Mr. Meek describes the iris of the males as dark red or yellowish, that of the females as pale yellowish and dark red; bill slaty blue with black ridge, bluish slate, or slate-colour; feet greenish vellow, sage-green, or dirty yellow.

An egg from Owgarra (26. xii. 05) has a very thick shell with numerons little pits, as if from the point of a needle, and is of a greenish buff-colonr, almost without gloss. It measures 32.5×25 mm.

2. Turnix maculosus (Temm.).

Hemipodius maculosus Temminck, Pig. et Gallin, iii. pp. 361, 757 (1815—Australia). (Cf. Nov. Zool. 1904. p. 177.)

d ♀, Upper Aroa River, 6. xii. 04. (Nos. B 92, 93.)

"Iris pale yellowish white. Feet sage-green. Bill: &, greenish yellow \$, greenish yellow, brownish towards the tip."

3. Ptilinopus superbus (Temm. & Knip).

Cf. Nov. Zool. 1901. p. 102.

2 ♂♂, Avera, Aroa River, 20. i., 16. xi. 03. (Nos. A 23, A 236.) 2 ♂♂, Upper Aroa River, 18. i., 20. iv. 05. (Nos. B 173, 230.)

4. Ptilinopus pulchella (Temm.).

Cf. Nov. Zool. 1901. p. 102.

1 &, Buhuni, Aroa River, 23. iv. 05. (No. B 244.)

5. Ptilinopus coronulatus coronulatus Gray.

Cf. Nov. Zool. 1901, p. 102.

2 & &, Upper Aroa River, January 1905. (Nos. B 131, 181.)